Catastrophe: The Global Cost of the Ukraine War

Carl Conetta
Project on Defense Alternatives
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Overview

The Russia-Ukraine war has been a disaster for Ukraine, obviously - but also a calamity for the entire world. Ukraine has already suffered levels of death and destruction reminiscent of the height of the Yugoslav wars (1992-1995, 1998-1999) and the worst months of the Iraq War (2003-2011, 2014-2018); It even calls to mind the 1980-1988 Iran-Iraq war.[1] The wealth, tenacity, and exceptional military power of the contestants - Russia, Ukraine, and USA-NATO - have made for a high-intensity war. Although physical destruction has been largely limited to Ukraine, the other effects of the war have not been limited. The impact on life and livelihood outside the combatant countries has been profound. In fact, many more people have died outside Ukraine due to the conflict than inside.

The war's acute global effect is due partly to the importance of Russia and Ukraine to global agricultural and energy production. Amplifying this, however, is the intentional global economic warfare - sanctions, blockades, embargoes - that has accompanied the fighting. And that is only part of the broader impact.

The conflict and the economic warfare it involves, have driven up food and energy prices worldwide, disrupted world trade, helped stall and reverse post-pandemic economic recovery, and drawn scarce resources away from other humanitarian crises and economic development efforts. The collateral effects of the war mean not only years of additional acute hardship for a billion global citizens and lowered living standards for billions more, but also reduced action on other global threats including climate change and health crises.

As outlined below, the financial expenditures associated with the war for Russia, Ukraine, and nations supporting Ukraine has been $25 billion a month. Longer term costs include

reconstruction - presently estimated at $413 billion - and a sudden jump in the base-level of annual global military spending exceeding $300 billion. Already, this is a trillion dollar war.

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The combatants' cost in human lives

An evidence based estimate of Russian military fatalities is 35,000 (as of March 2022). Ukrainian combatant fatalities probably exceed 20,000.[2] A very rough initial estimate of Ukrainian civilian fatalities is 20,000 dead due to the war's direct effects (such as bombardment) and another 20,000 due to indirect effects (such as lack of access to essential health care).[3] Outside Ukraine, we estimate that the war's broader effects have caused the death of more than 250,000 people (as explained below).

So far, the average level of monthly fatalities due to this war has been 27,000 people. Twenty-five thousand dead - every month: 4,000 combatants, ~3,000 Ukrainian civilians, and *~20,000* non-Ukrainian civilians. Recent disclosures of US intelligence estimates reveal an expectation that the war will not end in 2023.[4] Excluding the possibility of nuclear use - which is low but non-zero probability - the war may nevertheless claim a total of 600,000 lives before being brought to a close.

A global economic tsunami

Due to the war and how it has been fought the volume of global trade has declined 3.4%, energy prices have doubled worldwide, food prices grew by 14% in 2022 - more than that for poor countries (25%) - and a pervasive global economic slowdown has set in: The IMF forecasts a 2.8 trillion loss in global output for 2023. This reflects a sharp contraction in global growth from 6% 2021 to 2.6% in 2023.[5] Such contraction obviously undermines wage growth everywhere and either causes job loss or stymies job growth. Unemployment is not only a matter of personal economic stress, it also is a factor increasing crime rates, especially among youth.[6] And it is a correlate of increased death rates among those cast out of work.[7]

The impact of energy cost inflation

Due to the energy cost increases attending the war, the number of people living in extreme poverty worldwide increased in 2022 by between 75- and 141-million (according to different estimates) - mostly in the Global South.[8] These are households already living on the edge who

cannot accommodate sharp price hikes. Energy price inflation has also affected Europe, however. The Economist research unit calculated that, given the rise in energy costs, even a mild winter such as 2022-2023 would produce at least 32,000 excess deaths in Europe.[9] The example of Germany bears this out: It suffered 8,000 excess deaths in December 2022, compared with Dec 2021.[10] Inflation affecting fuel and food consumption is not a marginal inconvenience for those living on the edge. It is a matter of life and death.

The impact of food price inflation and other limits on food supply

The rise in food prices had an incomparable negative impact on the Global South. There the rise was 25%.[11] Also affecting access to food and fertilizer was reduced supply and disrupted international transport. The UN estimates that, as a result, the number of people suffering acute food insecurity jumped from 282 million at the end of 2021 to a record 345 million in 2022 - an increase of 63 million (which is about 18% of the total).[12] How many collateral deaths might this imply? A low-end estimate of the number of people who died due to hunger in 2022 is 3 million.[13] (Many more died due to hunger related disease, notably high blood pressure, heart disease, and diabetes.) The 2022 increase in severe malnutrition is probably not entirely due to the war's effects, but even if only half the increase in acute hunger is due to the conflict, the associated number of excess deaths would be more than 250,000 people - from hunger and its health effects alone.

The "Aid Void"

International support for humanitarian assistance increased from $20 billion in 2021 to $30 billion in 2022, largely to address the global impact of the Ukraine war. But it wasn't enough. Total funding fell short of assessed need by more than $20 billion.[14] This shortfall in aid was worse than the previous year. And it was not felt uniformly. Half the 2023 increase was allocated directly to Ukraine. This met 82% of Ukraine's assessed need. For the rest world, 54.5% of assessed need was met.[15] This difference is not due to fatality rates being higher in Ukraine than anywhere else. They were not; Ethiopia and Somalia faced comparable humanitarian disasters in terms of lives lost.[16]

There was also a substantial redirection of Official Development Assistance (ODA) in accord with war policy. Formally, the standing rationale for ODA is to assist the market development of less developed economies. In Europe and the United States about $35 billion in development assistance is now being diverted to support in-country refugees, mostly displaced

Ukrainians.[17] This is about 20% of available global ODA. (The previous high-point of in-country donor use of ODA came in 2015 due to the surge in Syrian refugees.)

Ukraine War Support vs Other Global Assistance

In addition to humanitarian aid, direct support to Kyiv's economy and war effort - about $200 billion in a single year - has far outpaced other recent international initiatives. *It is equal to the total of global ODA and humanitarian aid combined.*[18] (For comparison, US and other annual support to the Afghan Mujahideen during their fight against Russian occupation between 1979 and 1990 was barely *one percent* the sum granted Ukraine in its first year of war, corrected for inflation).[19]

Western support for the Ukrainian war may continue at a rate of $17 billion or more per month until the conflict ends. Postwar reconstruction will require additional funds. Kyiv and the World Bank currently estimate the cost of reconstruction and recovery to be $411 billion.[20] One measure of the extent of material destruction suffered by Ukraine is the number of residential buildings damaged or destroyed: 150,000+ as of August 2022.[21]

Financial Cost to Moscow

The war cost Moscow more than $107 billion in excess spending in 2022 with as much as $60 billion of this excess being allocated to the military and security services.[22] These figures do not account for the depletion of Russian war stocks, including the expenditure of thousands of missiles and millions of artillery rounds as well as the confirmed loss of 1900 tanks, 4000 other armored vehicles, 750 artillery pieces, 78 combat aircraft, and 80 helicopters.[23] These and other material expenditures and losses add tens-of-billions of dollars to Moscow's war bill. Russia's GDP is estimated by the World Bank and IMF to have declined by only 2.1% in 2022 compared with 2021, despite sanctions.

Financial Cost to Kyiv

Ukraine's immediate financial costs include a 29% reduction in its GDP (down from about $200 billion in 2021)[24] and a year-end deficit of more than $24.5 billion.[25] Government expenditure on defense in 2022 was approximately $42 billion - equivalent to 30% of the nation's 2022 GDP. That level of defense expenditure was $33.7 billion more than had been planned prewar.[26] Notably, Ukraine's total government expenditure in 2022 was about $75 billion with $32 billion of this sum either borrowed or granted by allied governments.[27]

Impact on Global Defense Spending

A final financial burden that the world will carry for years to come is a 2022-2024 surge in baseline annual global defense spending exceeding $300 billion - a boost surpassing all current development and humanitarian assistance. In 2021, global defense expenditure exceeded $2.1 trillion.[28] Between 2021 and 2024, the US defense budget will increase by approximately $170 billion.[29] European NATO is also expected to significantly increase military spending.[30] Russia has already done so. And we should expect the spending boost to cascade throughout Asia as well. By 2025, global military spending may exceed $2.6 trillion.

Notes

1. Although more combatants and civilians have been killed in the Yugoslav wars and the interlinked Iraq and Syria wars, the Russia-Ukraine war has proven more intensive, claiming more or equivalent lives per month on average than the aforementioned conflicts. Over a combined period of 48 months, the Bosnia and Kosovo conflicts may have claimed the lives of ~58,000 combatants and ~50,000 civilians (direct combat deaths). This entails an average monthly toll that is just a fraction of that suffered in the Russia-Ukraine war to date: 28% as great for combatant fatalities, 70% as great for civilian direct fatalities.

Looking at the interlinked Iraq and Syria wars (2003-2023): These have claimed more than 500,000 civilian dead (direct) and 450,000 combatant fatalities. In this case, the average monthly rate of civilians killed by direct means is roughly comparable to Ukraine. However, the average monthly rate of combatant fatalities seems substantially higher in the Ukraine conflict, with one caveat: Many of those counted as civilian dead in the Iraq and Syria cases may actually have been insurgent combatants.

An important qualification is that, while the Russia-Ukraine war involves high-intensity combat, the earlier wars had predominant phases of low-intensity or mid-intensity conflict. Such conflicts include civil wars, insurgencies, and occasional conventional force clashes. These conflicts may evince a higher ratio of civilian-to-combatant casualties because they tend to have no discernible "front" and may flare or persist throughout a country's expanse. The Iraq war, especially, waxed and waned over a period of 12 years. During this time there were periods of fighting that were briefly as intense as the Russia-Ukraine war.

A final relevant data point is the 1980-1988 Iran-Iraq conflict. Although a war fought for limited aims, it was characterized by numerous high-intensity battles. Revised estimates for the number of combatants killed are 250,000 Iraqis and 155,000 Iranians. Averaged over eight years this would produce monthly totals comparable to those in the Russia-Ukraine war to date. However, combat in the Iran-Iraq war did not spread evenly. Some periods saw many thousands killed in a week. Such was the 1986 Iranian offensive that took the al-Faw peninsula. More than 40,000 Iraqis and Iranians were reported killed over a six week period. Nothing so intense has occurred in the Russia-Ukraine war - to date.

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2. Ukraine consistently claimed 13,000 military dead *before* its Sep 2022 offensives. Fatalities at the same rate since then would put the mid-April 2023 total at 20,000 or so, which is somewhat more than estimated by the US military at the beginning of March. Thirty-five thousand (35,000) Russian dead is the lower end of the US estimate but it is a good extrapolation from several sources: The *Mediazona* open intelligence website which tracks death notices on Russian media, additional reports of military deaths by the Ombudsman of the "Donetsk People's Republic," US, Ukrainian, and Russian intelligence reporting the number of Russian army units rendered "combat ineffective," and visually-verified Russian equipment losses reported by *Oryx*, an open intelligence collective.

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Notably, these estimates do not include those killed in the 2014-2022 Donbas civil war before the large-scale Feb 2022 Russian invasion. For this earlier phase of conflict the United Nations reports 3,400 direct civilian fatalities, 4,400 Ukrainian military and pro-Kyiv forces, and 6,500 Donbas rebel forces.

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18. Official Development Assistance (ODA) in 2022 equaled $204 billion with approximately $31.5 billion either going to Ukraine or spent internally by donor countries to support for Ukrainian refugees. Minus this amount, ODA declined. In 2022, humanitarian aid increased over the previous year, but solely due to ~$10 billion in aid to Ukraine. Non-Ukraine Official Development Assistance and humanitarian aid worldwide equaled just under $200 billion, which is somewhat less than all forms of aid (including military) lent Ukraine.

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